10/070,853 L/Cook 3/3/06

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(FILE 'HOME' ENTERED AT 13:27:49 ON 03 MAR 2006)

FILE 'BIOSIS, CAPLUS, EMBASE, MEDLINE, JAPIO' ENTERED AT 13:28:07 ON 03 MAR 2006

	MAR 2006	
L1	3935	S (SODIUM THIOCYANATE)
L2	149	S L1 AND FRACTION?
L3	67	S L1 AND PEPTIDE?
L4	1	S L1 AND ADRENOMEDULLIN?
L5	45	DUPLICATE REMOVE L3 (22 DUPLICATES REMOVED)
L6	40	S L5 AND PD<2001
L7	30	S L1 AND REVIEW
L8	23	DUPLICATE REMOVE L7 (7 DUPLICATES REMOVED)
L9	1	S L8 AND PEPTIDE?
L10	22	S L8 NOT L9
L11	16	S L10 AND PD<2001
L12	1	S L1 AND TFA?

(FILE 'HOME' ENTERED AT 13:27:49 ON 03 MAR 2006)

FILE 'BIOSIS, CAPLUS, EMBASE, MEDLINE, JAPIO' ENTERED AT 13:28:07 ON 03 MAR 2006

	MAR 2006	
L1	3935	S (SODIUM THIOCYANATE)
L2	149	S L1 AND FRACTION?
L3	67	S L1 AND PEPTIDE?
L4	1	S L1 AND ADRENOMEDULLIN?
L5	45	DUPLICATE REMOVE L3 (22 DUPLICATES REMOVED)
L6	40	S L5 AND PD<2001
L7	30	S L1 AND REVIEW
L8	23	DUPLICATE REMOVE L7 (7 DUPLICATES REMOVED)
L9	1	S L8 AND PEPTIDE?
L1(22	S L8 NOT L9
L1:	. 16	S L10 AND PD<2001
L12	1	S L1 AND TFA?

=>

(FILE 'HOME' ENTERED AT 14:42:17 ON 03 MAR 2006)

	FILE 'BIOSIS, CAPLUS, EMBASE, JAPIO' ENTERED AT 14:42:49 ON 03 MAR 2006
L1	3670 S (SODIUM THIOCYANATE)
L2	3 S L1 AND RIA?
L3	2 DUPLICATE REMOVE L2 (1 DUPLICATE REMOVED)
L4	50 S L1 AND PEPTIDE?
L5	38 DUPLICATE REMOVE L4 (12 DUPLICATES REMOVED)
L6	9 S L5 AND BIND?

ANSWER 2 OF 3 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN DUPLICATE 2

AN 82111797 EMBASE

DN 1982111797

TI Purification and characterization of mouse beta-2 microglobulin: Allelic variants from two different strains.

AU Ramanathan L.; Dubois G.C.; Robinson E.A.; Appella E.

CS Lab. Cell Biol., Natl. Cancer Inst., NIH, Bethesda, MD 20205, United States

SO Molecular Immunology, (1982) Vol. 19, No. 3, pp. 435-446. . CODEN: IMCHAZ

CY United Kingdom

DT Journal

FS 026 Immunology, Serology and Transplantation

LA English

ED Entered STN: 911209 Last Updated on STN: 911209

Beta-2 microglobulin (β 2M) is a 12,000 dalton protein associated with AB membrane-bound cell surface antigens. Variants of $\beta 2M$, $\beta 2MA$ and β2MB, were first detected by Michaelson et al. (Immunogenetics II, 93-95, 1980). An improved method was used to purify β 2MA and β2MB from BALB/c and C57BL/6 mouse livers, respectively. Reproducible yields of 10% were obtained. The purifications were accomplished by a 3 M sodium thiocyanate (NaSCN) extraction of a crude membrane fraction, an acid precipitation step, gel filtration on Sephadex G-75 and ion-exchange chromatography on DEAE-cellulose and CM-cellulose in that order. The elution profile of $\beta 2MA$ and $\beta 2MB$ on the ion-exchange columns was found to be different, indicating the presence of structural changes, β2MA was found to be more acidic (pI = 7.35) than $\beta 2MB$ (pI = 7.68) by isoelectric focusing in gels. Complete sequence analysis of $\beta 2MA$ and partial sequence analysis of $\beta 2MB$ (61 of 99 residues) were performed by automated Edman degradation of the intact chain and of the overlapping peptides obtained by: (a) tryptic cleavage at arginines after acetimidation of lysine side chains, (b) BNPS-skatole cleavage at tryptophan residues and (c) hydroxylamine cleavage at asparagine-glycine linkages. A comparison of the primary structure of $\beta 2MA$ to the partial amino acid sequence obtained for β2MB revealed a single amino acid substitution (aspartic acid for alanine at position 85) that accounts for the differences in biochemical properties observed.

CT Medical Descriptors:
 *protein purification
 animal experiment
 heredity
 mouse
 Drug Descriptors:
 *beta 2 microglobulin
 gene product

RN (beta 2 microglobulin) 9066-69-7

```
ANSWER 2 OF 3 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
     2002:27947 BIOSIS
AN
DN
     PREV200200027947
     Efficient elution of functional proteins in affinity
ΤI
     chromatography.
ΑU
     Firer, M. A. [Reprint author]
     Immunology Laboratory, E. Katzir Biotechnology Program, Research
CS
     Institute, College of Judea and Samaria, Ariel, 44837, Israel
     firer@research.yosh.ac.il
     Journal of Biochemical and Biophysical Methods, (30 October, 2001) Vol.
SO
     49, No. 1-3, pp. 433-442. print.
     CODEN: JBBMDG. ISSN: 0165-022X.
DT
     Article
     General Review; (Literature Review)
LA
     English
     Entered STN: 26 Dec 2001
ED
     Last Updated on STN: 25 Feb 2002
     Many elution buffers are in use for the retrieval of proteins
AΒ
     from affinity columns. While the aim of these buffers is to dissociate
     the various chemical bonds that make up protein-protein
     interactions and return the target protein to the mobile phase
     in active form, there is considerable difference of opinion as to which
     buffer is more suitable for particular applications. This review
     examines the chemical effect of various elution buffers on protein
     -protein interactions in the context of affinity chromatography
     and examines strategies that may be used for selection of an appropriate
     buffer.
CC
     Biochemistry studies - General
                                      10060
     Major Concepts
IT
        Biochemistry and Molecular Biophysics; Methods and Techniques
IT
     Chemicals & Biochemicals
        ammonium hydroxide; elution buffers; ethylene glycol; functional
        proteins: efficient elution; glycine; guanadine thiocyanate;
        magnesium chloride; sodium carbonate; sodium iodide; sodium
        thiocyanate; urea
IT
     Methods & Equipment
        affinity chromatography: liquid chromatography, purification method
    Miscellaneous Descriptors
IT
       biological interactions; immunoaffinity; protein-
        protein interactions
RN
     1336-21-6 (ammonium hydroxide)
     107-21-1 (ethylene glycol)
     56-40-6 (glycine)
     7786-30-3 (magnesium chloride)
     497-19-8 (sodium carbonate)
     7681-82-5 (sodium iodide)
     540-72-7 (sodium thiocyanate)
     57-13-6 (urea)
```

(FILE 'HOME' ENTERED AT 15:14:44 ON 03 MAR 2006)

FILE 'BIOSIS, CAPLUS, EMBASE, MEDLINE, JAPIO' ENTERED AT 15:15:00 ON 03 MAR 2006

L1	3935	S (SODIUM THIOCYANATE)
L2	126	S L1 AND FRACTION
L3	67	S L1 AND PEPTIDE
L4	7	S L2 AND L3
L5	3	DUPLICATE REMOVE L4 (4 DUPLICATES REMOVED)
L6	39	S L1 AND REVIEW?
L7	1	S L6 AND PEPTIDE?
L8	8	S L6 AND PROTEIN?
L9	3	DUPLICATE REMOVE L8 (5 DUPLICATES REMOVED)

ANSWER 5 OF 40 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN 1993:294427 BIOSIS AN DN PREV199396012652 Studies in C-terminal sequencing: New reagents for the synthesis of ΤI peptidylthiohydantoins. Shenoy, Narmada R.; Shively, John E.; Bailey, Jerome M. [Reprint author] ΑU Beckman Res. Inst. City Hope, Div. Immunol., 1450 E. Duarte Rd., Duarte, CS CA 91010, USA SO Journal of Protein Chemistry, (1993) Vol. 12, No. 2, pp. 195-205. CODEN: JPCHD2. ISSN: 0277-8033. DT Article English LA ED Entered STN: 23 Jun 1993 Last Updated on STN: 3 Jan 1995 AB In previous studies aimed at the sequencing of peptides and proteins from the carboxy terminus, we have derivatized the C-terminus to a thiohydantoin using acetic anhydride and trimethylsilylisothiocyanate (TMS-ITC) and subsequently hydrolyzed it to form a shortened peptide capable of further degradation and an amino acid thiohydantoin which can be identified by reverse-phase HPLC. Current limitations to this chemistry include an inability to derivatize proline and low yields with asparagine and aspartic acid residues (Bailey et al., 1992). In an attempt to solve some of these problems, we have investigated the use of reagents other than acetic anhydride for the activation of the C-terminal carboxylic acid. These include 2-fluoro-1-methylpyridinium tosylate, 2-chloro-1-methylpyridinium iodide, and acetyl chloride. Addition of TMS-ITC to peptides activated by the 2-halo-pyridinium salts formed the expected peptidylthiohydantoin, but in addition formed a peptide chemically modified at the C-terminus which was blocked to C-terminal which was blocked to C-terminal sequence analysis. This derivative was not obtained when either acetic anhydride or acetyl chloride was used for activation. Formation of this derivative was found to require the presence of an isothiocyanate reagent in addition to the halo-pyridinum salt. Sodium thiocyanate, TMS-ITC, and a new reagent for thiohydantoin synthesis, tributyltinisothiocyanate (TBSn-ITC), were all found to be capable of forming this analogue. Structural elucidation of the C-terminally modified amino acid revealed it to be a 2-imino-pyridinium analogue. Formation of this C-terminally blocked peptide could be minimized by the use of the 2-chloro-pyridinium reagent, rather than the 2-fluoro reagent, and by performing the reaction at a temperature of 50 degree C or lower. The 2-halo-pyridinium reagents offer potential advantages over the use of acetic anhydride for activation of the C-terminal carboxylic acid. These include: milder reaction conditions, faster reaction times, and the ability to sequence through C-terminal aspartic acid. The TBSn-ITC reagent was found to be comparable to TMS-ITC for formation of peptidylthiohydantoins. CC Biochemistry methods - Proteins, peptides and amino acids Biochemistry studies - General 10060 Biochemistry studies - Proteins, peptides and amino acids Biophysics - Molecular properties and macromolecules IT Major Concepts Biochemistry and Molecular Biophysics IT Chemicals & Biochemicals

ACETIC ANHYDRIDE; TRIMETHYLSILYLISOTHIOCYANATE; 2-FLUORO-1-METHYLPYRIDINIUM TOSYLATE; 2-CHLORO-1-METHYLPYRIDINIUM IODIDE; ACETYL CHLORIDE; TRIBUTYLTINISOTHIOCYANATE

IT Miscellaneous Descriptors

RN

ACETIC ANHYDRIDE; ACETYL CHLORIDE; SYNTHETIC METHOD; TRIBUTYLTINISOTHIOCYANATE; TRIMETHYLSILYLISOTHIOCYANATE; 2=CHLORO-1-METHYLPYRIDINIUM IODIDE; 2=FLUORO-1-METHYLPYRIDINIUM TOSYLATE

108-24-7 (ACETIC ANHYDRIDE)

ANSWER 5 OF 40 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN 1993:294427 BIOSIS ANDN PREV199396012652 Studies in C-terminal sequencing: New reagents for the synthesis of ΤI peptidylthiohydantoins. Shenoy, Narmada R.; Shively, John E.; Bailey, Jerome M. [Reprint author] ΑU Beckman Res. Inst. City Hope, Div. Immunol., 1450 E. Duarte Rd., Duarte, CS CA 91010, USA SO Journal of Protein Chemistry, (1993) Vol. 12, No. 2, pp. 195-205. CODEN: JPCHD2. ISSN: 0277-8033. DT Article English LA Entered STN: 23 Jun 1993 ED Last Updated on STN: 3 Jan 1995 In previous studies aimed at the sequencing of peptides and AR proteins from the carboxy terminus, we have derivatized the C-terminus to a thiohydantoin using acetic anhydride and trimethylsilylisothiocyanate (TMS-ITC) and subsequently hydrolyzed it to form a shortened peptide capable of further degradation and an amino acid thiohydantoin which can be identified by reverse-phase HPLC. Current limitations to this chemistry include an inability to derivatize proline and low yields with asparagine and aspartic acid residues (Bailey et al., 1992). In an attempt to solve some of these problems, we have investigated the use of reagents other than acetic anhydride for the activation of the C-terminal carboxylic acid. These include 2-fluoro-1-methylpyridinium tosylate, 2-chloro-1-methylpyridinium iodide, and acetyl chloride. Addition of TMS-ITC to peptides activated by the 2-halo-pyridinium salts formed the expected peptidylthiohydantoin, but in addition formed a peptide chemically modified at the C-terminus which was blocked to C-terminal which was blocked to C-terminal sequence analysis. This derivative was not obtained when either acetic anhydride or acetyl chloride was used for activation. Formation of this derivative was found to require the presence of an isothiocyanate reagent in addition to the halo-pyridinum salt. Sodium thiocyanate, TMS-ITC, and a new reagent for thiohydantoin synthesis, tributyltinisothiocyanate (TBSn-ITC), were all found to be capable of forming this analogue. Structural elucidation of the C-terminally modified amino acid revealed it to be a 2-imino-pyridinium analogue. Formation of this C-terminally blocked peptide could be minimized by the use of the 2-chloro-pyridinium reagent, rather than the 2-fluoro reagent, and by performing the reaction at a temperature of 50 degree C or lower. The 2-halo-pyridinium reagents offer potential advantages over the use of acetic anhydride for activation of the C-terminal carboxylic acid. These include: milder reaction conditions, faster reaction times, and the ability to sequence through C-terminal aspartic acid. The TBSn-ITC reagent was found to be comparable to TMS-ITC for formation of peptidylthiohydantoins. CC Biochemistry methods - Proteins, peptides and amino acids Biochemistry studies - General 10060 Biochemistry studies - Proteins, peptides and amino acids Biophysics - Molecular properties and macromolecules ΙT Major Concepts Biochemistry and Molecular Biophysics IT Chemicals & Biochemicals ACETIC ANHYDRIDE; TRIMETHYLSILYLISOTHIOCYANATE; 2-FLUORO-1-METHYLPYRIDINIUM TOSYLATE; 2-CHLORO-1-METHYLPYRIDINIUM IODIDE; ACETYL

IT Miscellaneous Descriptors
 ACETIC ANHYDRIDE; ACETYL CHLORIDE; SYNTHETIC METHOD;
 TRIBUTYLTINISOTHIOCYANATE; TRIMETHYLSILYLISOTHIOCYANATE;
 2=CHLORO-1-METHYLPYRIDINIUM IODIDE; 2=FLUORO-1-METHYLPYRIDINIUM
 TOSYLATE

CHLORIDE; TRIBUTYLTINISOTHIOCYANATE

RN 108-24-7 (ACETIC ANHYDRIDE)

2290-65-5 (TRIMETHYLSILYLISOTHIOCYANATE) 58086-67-2 (2-FLUORO-1-METHYLPYRIDINIUM TOSYLATE) 14338-32-0 (2-CHLORO-1-METHYLPYRIDINIUM IODIDE) 75-36-5 (ACETYL CHLORIDE)

5035-65-4 (TRIBUTYLTINISOTHIOCYANATE)

2290-65-5 (TRIMETHYLSILYLISOTHIOCYANATE)
58086-67-2 (2-FLUORO-1-METHYLPYRIDINIUM TOSYLATE)
14338-32-0 (2-CHLORO-1-METHYLPYRIDINIUM IODIDE)
75-36-5 (ACETYL CHLORIDE)
5035-65-4 (TRIBUTYLTINISOTHIOCYANATE)



Answers.com

Chaotropic agent



<u>Business Entertainment Games Health People Places Reference Science St</u> Words More...

On this page:
Wikipedia

Chaotropic agent

<u>Wikipedia</u>



Chaotropic agent

A Chaotropic agent is an agent which causes molecular structure to be disrupted; in particular, those formed by nonbonding forces such as <u>hydrogen bonding</u>, Van der Waals interactions, and the <u>hydrophobic effect</u>. Often structural features, as detected by means such as <u>circular dichroism</u> can be titrated in a chaotrope concentration-dependent fashion.

The most commonly used chaotropes are 6-8M <u>urea</u> and 6M <u>guanidine</u>, with urea being an uncharged molecule and guanidine being a hydrochloride salt.

High generic salts can have chaotropic properties, by shielding charges and preventing the stabilization of salt bridges. Hydrogen bonding is stronger in nonpolar media, so salts, which increase the <u>dipole moment</u> of the <u>solvent</u>, can also destabilize hydrogen bonding.

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Characterizing Proteins

Dynamic light scattering instrument for analyzing protein structures www.malvern.co.uk/Proteins

Mentioned In

Chaotropic agent is mentioned in the following topics: submitochondrial particle

```
ANSWER 11 OF 25 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on
     STN
AN
     1997:291981 BIOSIS
     PREV199799591184
DN
     Adrenomedullin as an autocrine/paracrine apoptosis survival
TI
     factor for rat endothelial cells.
     Kato, Hiroki; Shichiri, Masayoshi [Reprint author]; Marumo, Fumiaki;
ΑU
     Hirata, Yukio
CS
     Second Dep. Intern. Med., Tokyo Med. Dent. Univ., Yushima 1-5-45,
     Bunkyo-ku, Tokyo 113, Japan
     Endocrinology, (1997) Vol. 138, No. 6, pp. 2615-2620.
SO
     CODEN: ENDOAO. ISSN: 0013-7227.
DT
     Article
LA
     English
     Entered STN: 9 Jul 1997
ED
     Last Updated on STN: 9 Jul 1997
     Adrenomedullin is a potent vasorelaxant/hypotensive
AB
     peptide recently isolated from human pheochromocytoma.
     demonstrate here a novel role of this peptide as an apoptosis
     survival factor for rat endothelial calls. When rendered quiescent by
     serum deprivation, a fraction of endothelial cell cultures
     showed morphological and biochemical features characteristic of apoptosis.
     Adrenomedullin significantly suppressed apoptosis without inducing
     cell proliferation. Rat endothelial calls that contained high affinity
     binding sites for adrenomedullin expressed
     adrenomedullin gene and released the peptide into
     culture media. Addition of preimmune rabbit serum prevented apoptosis,
     whereas rabbit antiadrenomedullin antiserum partially, but significantly,
     abrogated the protective effect of the preimmune serum, suggesting its
     autocrine/paracrine role. Although adrenomedullin induced
     intracellular cAMP formation, other cAMP-elevating agonists, such as
     prostaglandin 12 and forskolin, did not affect apoptosis. Furthermore,
     adenosine 3',5'-cyclicmonophosphothioate Rp-isomer, a cAMP antagonist, did
     not block the cell survival effect of adrenomedullin.
     Adrenomedullin neither increased intracellular Ca-2+
     concentrations nor inositol-1,4,5-trisphosphate levels in rat endothelial
     cells. These results demonstrate that adrenomedullin suppresses
     serum deprivation-induced apoptosis of rat endothelial cells via
     cAMP-independent mechanism.
CC
     Biochemistry studies - General
                                      10060
     Cardiovascular system - General and methods
                                                   14501
     Endocrine - General
                           17002
TΤ
     Major Concepts
        Biochemistry and Molecular Biophysics; Cardiovascular System (Transport
        and Circulation); Endocrine System (Chemical Coordination and
        Homeostasis)
IT
     Chemicals & Biochemicals
          ADRENOMEDULLIN; CYCLIC AMP
    Miscellaneous Descriptors
TТ
          ADRENOMEDULLIN; AUTOCRINE/PARACRINE APOPTOSIS SURVIVAL
        FACTOR; CAMP; CARDIOVASCULAR SYSTEM; CIRCULATORY SYSTEM; CYCLIC AMP;
        ENDOTHELIAL CELLS; SERUM DEPRIVATION-INDUCED APOPTOSIS
ORGN Classifier
                  86375
       Muridae
        Rodentia; Mammalia; Vertebrata; Chordata; Animalia
     Organism Name
        rat
     Taxa Notes
       Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals,
        Rodents, Vertebrates
     154835-90-2 (ADRENOMEDULLIN)
RN
     60-92-4 (CYCLIC AMP)
```

```
ANSWER 11 OF 25 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on
     STN
AN
     1997:291981 BIOSIS
     PREV199799591184
DN
     Adrenomedullin as an autocrine/paracrine apoptosis survival
TΤ
     factor for rat endothelial cells.
     Kato, Hiroki; Shichiri, Masayoshi [Reprint author]; Marumo, Fumiaki;
ΔII
     Hirata, Yukio
CS
     Second Dep. Intern. Med., Tokyo Med. Dent. Univ., Yushima 1-5-45,
     Bunkyo-ku, Tokyo 113, Japan
     Endocrinology, (1997) Vol. 138, No. 6, pp. 2615-2620.
SO
     CODEN: ENDOAO. ISSN: 0013-7227.
DT
     Article
LΑ
     English
     Entered STN: 9 Jul 1997
ED
     Last Updated on STN: 9 Jul 1997
     Adrenomedullin is a potent vasorelaxant/hypotensive
AB
     peptide recently isolated from human pheochromocytoma.
     demonstrate here a novel role of this peptide as an apoptosis
     survival factor for rat endothelial calls. When rendered quiescent by
     serum deprivation, a fraction of endothelial cell cultures
     showed morphological and biochemical features characteristic of apoptosis.
     Adrenomedullin significantly suppressed apoptosis without inducing
     cell proliferation. Rat endothelial calls that contained high affinity
     binding sites for adrenomedullin expressed
     adrenomedullin gene and released the peptide into
     culture media. Addition of preimmune rabbit serum prevented apoptosis,
     whereas rabbit antiadrenomedullin antiserum partially, but significantly,
     abrogated the protective effect of the preimmune serum, suggesting its
     autocrine/paracrine role. Although adrenomedullin induced
     intracellular cAMP formation, other cAMP-elevating agonists, such as
     prostaglandin 12 and forskolin, did not affect apoptosis. Furthermore,
     adenosine 3',5'-cyclicmonophosphothioate Rp-isomer, a cAMP antagonist, did
     not block the cell survival effect of adrenomedullin.
     Adrenomedullin neither increased intracellular Ca-2+
     concentrations nor inositol-1,4,5-trisphosphate levels in rat endothelial
     cells. These results demonstrate that adrenomedullin suppresses
     serum deprivation-induced apoptosis of rat endothelial cells via
     cAMP-independent mechanism.
     Biochemistry studies - General
                                      10060
CC
     Cardiovascular system - General and methods
                                                   14501
     Endocrine - General
                           17002
TΨ
     Major Concepts
        Biochemistry and Molecular Biophysics; Cardiovascular System (Transport
        and Circulation); Endocrine System (Chemical Coordination and
        Homeostasis)
     Chemicals & Biochemicals
IT
          ADRENOMEDULLIN; CYCLIC AMP
TT
     Miscellaneous Descriptors
          ADRENOMEDULLIN; AUTOCRINE/PARACRINE APOPTOSIS SURVIVAL
        FACTOR; CAMP; CARDIOVASCULAR SYSTEM; CIRCULATORY SYSTEM; CYCLIC AMP;
        ENDOTHELIAL CELLS; SERUM DEPRIVATION-INDUCED APOPTOSIS
ORGN Classifier
        Muridae
                  86375
     Super Taxa
        Rodentia; Mammalia; Vertebrata; Chordata; Animalia
     Organism Name
        rat
     Taxa Notes
        Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals,
        Rodents, Vertebrates
     154835-90-2 (ADRENOMEDULLIN)
RN
     60-92-4 (CYCLIC AMP)
```

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ANSWER 17 OF 25 CAPLUS COPYRIGHT 2006 ACS on STN
     1998:236834 CAPLUS
AN
     128:255997
DN
ED
     Entered STN: 25 Apr 1998
     Measurement of plasma and urinary adrenomedullin in patients
TI
     with IgA nephropathy
     Kubo, Atsushi; Iwano, Masayuki; Minamino, Naoto; Sato, Hiroaki; Nishino,
ΑU
     Toshihiko; Hirata, Eiji; Akai, Yasuhiro; Shiiki, Hideo; Kitamura, Kazuo;
     Kangawa, Kenji; Matsuo, Hisayuki; Dohi, Kazuhiro
     1st Dep. Internal Medicine, Nara Medical University, Nara, Japan
CS
     Nephron (1998), 78(4), 389-394
SO
     CODEN: NPRNAY; ISSN: 0028-2766
PB
     S. Karger AG
DT
     Journal
LA
     English
     14-12 (Mammalian Pathological Biochemistry)
CC
     Section cross-reference(s): 15
     Plasma and urinary adrenomedullin (AM) concns. were measured in
AB
     patients with IgA nephropathy using a specific RIA. The plasma AM concns.
     were higher and the urinary AM levels were lower in patients than in
     healthy volunteers. Plasma AM concns. showed a pos. correlation with
     serum creatinine, blood urea N, and fractional excretions of Na
     and K, whereas urinary AM levels correlated neg. with serum creatinine and
     blood urea N. Renal biopsy specimens of patients without renal failure
     were scored for activity (percentage of glomeruli demonstrating cellular
     crescent formation, degree of mesangial proliferation and interstitial
     infiltration; total score=9). Urinary levels were lower in the group with
     a high activity (score 3-9) as compared with the group with a low activity
     (score 0-2) based on renal biopsy. Urinary levels of AM are affected by
     the degree of the activity in IgA nephropathy, and AM may participate in
     the pathophysiol. of IgA nephropathy.
     adrenomedullin blood urine IgA nephropathy
ST
TT
     Kidney, disease
        (IgA nephropathy; blood plasma and urinary adrenomedullin in
        patients with IgA nephropathy)
IT
     Blood plasma
     Urine
        (blood plasma and urinary adrenomedullin in patients with IgA
        nephropathy)
IT
     85637-73-6, Atrial natriuretic peptide
                                              114471-18-0, Brain
     natriuretic peptide 154835-90-2, Adrenomedullin
     RL: BOC (Biological occurrence); BSU (Biological study, unclassified);
     BIOL (Biological study); OCCU (Occurrence)
        (blood plasma and urinary adrenomedullin in patients with IgA
        nephropathy)
                                        60-27-5, Creatinine
IT
     57-13-6, Urea, biological studies
     RL: BOC (Biological occurrence); BSU (Biological study, unclassified);
     BIOL (Biological study); OCCU (Occurrence)
        (blood; blood plasma and urinary adrenomedullin in patients
        with IgA nephropathy)
     7440-09-7, Potassium, biological studies 7440-23-5, Sodium, biological
IT
     studies
     RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
     (Biological study); PROC (Process)
        (urinary; blood plasma and urinary adrenomedullin in patients
        with IgA nephropathy)
```

(FILE 'HOME' ENTERED AT 11:28:36 ON 03 MAR 2006)

FILE 'BIOSIS, CAPLUS, EMBASE, MEDLINE, JAPIO' ENTERED AT 11:28:55 ON 03 MAR 2006

	MAR 2006	
L1		S (ADRENOMEDULLIN BIND? PROTEIN)
L2	34	DUPLICATE REMOVE L1 (34 DUPLICATES REMOVED)
L3	0	S L2 AND FRACTION?
L4	0	S L2 AND DISSOC?
L5	7737	S ADRENOMEDULLIN?
L6	189	S L5 AND FRACTION?
L7	0	S L6 AND C18?
L8		S L6 AND PEPTIDE?
L9	68	DUPLICATE REMOVE L8 (78 DUPLICATES REMOVED)
L10	25	S L9 AND PD<2001

۴ . جر

(FILE 'HOME' ENTERED AT 15:17:22 ON 01 MAR 2006)

FILE 'BIOSIS, CAPLUS, EMBASE, MEDLINE, JAPIO' ENTERED AT 15:17:34 ON 01 MAR 2006

```
0 S (SODIUM THIOCYANANTE)
L1
           3935 S (SODIUM THIOCYANATE)
L2
             67 S L2 AND PEPTIDE?
L3
            149 S L2 AND FRACTION?
L4
              2 S L2 AND C18?
L5
              2 DUPLICATE REMOVE L5 (0 DUPLICATES REMOVED)
L6
              8 S L3 AND L4
L7
              4 DUPLICATE REMOVE L7 (4 DUPLICATES REMOVED)
L8
              1 S L2 AND ADRENOMEDULLIN?
L9
          7727 S ADRENOMEDULLIN
L10
             1 S L10 AND (CHAOTROPIC?)
L11
             68 S (CHAOTROPIC AND REVIEW)
L12
            56 DUPLICATE REMOVE L12 (12 DUPLICATES REMOVED)
L13
              0 S (DEFIN? CHAOTROPIC?)
L14
              0 S L13 AND ADRENOMEDULLIN?
L15
             1 S L10 AND L2
L16
              2 S L8 AND UREA?
L17
             72 S L10 AND DISSOCIAT?
L18
             0 S L18 AND FRACTION?
L19
             61 S L18 AND PEPTIDE?
L20
             29 DUPLICATE REMOVE L20 (32 DUPLICATES REMOVED)
L21
             0 S L21 AND L2
L22
             13 S L21 AND PD<2001
L23
              0 S L10 AND (REVERSE BIND?)
L24
           1045 S L10 AND BIND?
L25
            135 S L25 AND FRAGMENT?
L26
L27
              9 S L10 AND C18?
              9 DUPLICATE REMOVE L27 (0 DUPLICATES REMOVED)
L28
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(FILE 'HOME' ENTERED AT 15:17:22 ON 01 MAR 2006)

FILE 'BIOSIS, CAPLUS, EMBASE, MEDLINE, JAPIO' ENTERED AT 15:17:34 ON 01 MAR 2006

```
0 S (SODIUM THIOCYANANTE)
L1
          3935 S (SODIUM THIOCYANATE)
L2
L3
            67 S L2 AND PEPTIDE?
           149 S L2 AND FRACTION?
L4
             2 S L2 AND C18?
L5
             2 DUPLICATE REMOVE L5 (0 DUPLICATES REMOVED)
L6
            8 S L3 AND L4
L7
L8
            4 DUPLICATE REMOVE L7 (4 DUPLICATES REMOVED)
            1 S L2 AND ADRENOMEDULLIN?
L9
L10
         7727 S ADRENOMEDULLIN
            1 S L10 AND (CHAOTROPIC?)
L11
L12
           68 S (CHAOTROPIC AND REVIEW)
           56 DUPLICATE REMOVE L12 (12 DUPLICATES REMOVED)
L13
L14
            0 S (DEFIN? CHAOTROPIC?)
           0 S L13 AND ADRENOMEDULLIN?
L15
            1 S L10 AND L2
L16
            2 S L8 AND UREA?
L17
           72 S L10 AND DISSOCIAT?
L18
L19
            0 S L18 AND FRACTION?
           61 S L18 AND PEPTIDE?
L20
           29 DUPLICATE REMOVE L20 (32 DUPLICATES REMOVED)
L21
L22
            0 S L21 AND L2
           13 S L21 AND PD<2001
L23
L24
            0 S L10 AND (REVERSE BIND?)
L25
         1045 S L10 AND BIND?
L26
          135 S L25 AND FRAGMENT?
L27
            9 S L10 AND C18?
L28
             9 DUPLICATE REMOVE L27 (0 DUPLICATES REMOVED)
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(FILE 'HOME' ENTERED AT 12:25:28 ON 03 MAR 2006)

FILE 'BIOSIS, CAPLUS, EMBASE, MEDLINE, JAPIO' ENTERED AT 12:25:39 ON 03 MAR 2006

	MAR 2006	
L1	7737 S	ADRENOMEDULLIN?
L2	0 S	(SODIUM THIOCYANANTE)
L3	57427 S	THIOCYANATE?
L4	9857 S	L3 AND SODIUM
L5	1 S	L4 AND L1
L6	1 S	L1 AND L3
L7	1 S	L6 AND L5

(FILE 'HOME' ENTERED AT 12:25:28 ON 03 MAR 2006)

FILE 'BIOSIS, CAPLUS, EMBASE, MEDLINE, JAPIO' ENTERED AT 12:25:39 ON 03 MAR 2006

	MAR	2000				
L1			_			MEDULLIN?
L2		0	S	(SC	DIU	I THIOCYANANTE)
L3		57427	S	TH	IOCY?	ANATE?
L4		9857	S	L3	AND	SODIUM
L5		1	S	L4	AND	L1
L6		1	S	L1	AND	L3
L7		1	S	L6	AND	L5

(FILE 'HOME' ENTERED AT 15:17:22 ON 01 MAR 2006)

FILE 'BIOSIS, CAPLUS, EMBASE, MEDLINE, JAPIO' ENTERED AT 15:17:34 ON 01 MAR 2006

	MAR 2006	
L1	0	S (SODIUM THIOCYANANTE)
L2	3935	S (SODIUM THIOCYANATE)
L3	67	S L2 AND PEPTIDE?
L4	149	S L2 AND FRACTION?
L5	2	S L2 AND C18?
L6	2	DUPLICATE REMOVE L5 (0 DUPLICATES REMOVED)
L7	8	S L3 AND L4
L8	4	DUPLICATE REMOVE L7 (4 DUPLICATES REMOVED)
L9	1	S L2 AND ADRENOMEDULLIN?
L10	7727	S ADRENOMEDULLIN
L11	1	S L10 AND (CHAOTROPIC?)
L12	68	S (CHAOTROPIC AND REVIEW)
L13	56	DUPLICATE REMOVE L12 (12 DUPLICATES REMOVED)
L14	0	S (DEFIN? CHAOTROPIC?)
L15	0	S L13 AND ADRENOMEDULLIN?
L16	1	S L10 AND L2